

5377

The Bactericidal Power of Viosterol.

B. E. MONTGOMERY. (Introduced by C. I. Reed.)

From the University of Illinois College of Medicine.

In an effort to determine whether irradiated ergosterol (viosterol) is capable of exerting any direct bactericidal power the following experiments were performed. Since the material used was in solution in corn oil, control experiments with pure corn oil were made for comparison. The preparation used was superactero (1000D),* 10 mg. ergosterol per cc.

Agar tubes were melted and cooled to 50°C. Mixtures were made as follows:

1 cc. viosterol	-10 cc. agar	1 cc. corn oil	-10 cc. agar
2 " "	-10 " "	2 " " "	-10 " "
3 " "	-10 " "	3 " " "	-10 " "
4 " "	-10 " "	4 " " "	-10 " "
5 " "	-10 " "	5 " " "	-10 " "

These tubes were shaken, poured into sterile petri dishes and cooled. The resulting mixture was a milky emulsion of the oil in the agar. One loopful of a 24-hour broth culture of *B. coli* was planted on the surface of each plate. Plain agar plates seeded in the same manner were used as controls. The plates were incubated 24 hours at 37.5°C. The growth on all the plates presented the same macroscopic characteristics. There was no evidence of inhibition of growth nor any modification of colony formation.

Flasks of broth prepared in the same manner and with identical proportions incubated for 24 hours at 37.5°C. were also negative as to inhibition of bacterial growth.

Likewise samples taken from these flasks and inoculated into plain agar plates showed no differences between the controls and the viosterol growths or characteristics.

A duplicate set of experiments with *Staphylococcus aureus* were also negative.

Conclusion: Neither irradiated ergosterol in corn oil, nor pure corn oil itself, inhibits the growth of cultures of *B. coli* or *Staphylococcus aureus* nor modifies the cultural characteristics of these organisms.

* This material was obtained through the courtesy of Dr. C. E. Bills, Mead, Johnson & Co.